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Federal Communications Commission 1919 M St. NW, #814 Washington, DC 20554

July 17, 1995

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Dear Sir/Madam:

I am writing in regard to your decision to allow the use of GSM mobil telephone technology. I have attached a letter to PC Magazine thanking them for making us all aware of the situation.

I find it frightening that a decision could be made such as this. We know that the GSM technology causes problems for people who wear hearing instruments, and no they are not just low-tech, low-cost or out dated ones.

Europe was the first to jump into this technology. Why can't we learn from their mistakes? I think of it as buying a PC. Do I want to go with old outdated software to save money? Or do I want to save myself some frustration and get the best that's available?

I think the FCC should ban the use of the GSA technology in the US and save millions of citizens the aggravation of interference in their hearing instruments and other electronic products.

Marian Glassford

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FEDERAL COMMUNICATIONS COMMISSION OFFICE OF SECRETARY

The Editor PC Magazine One Park Avenue NY, NY 10016-5802 July 17, 1995

Dear Sir/Madam:

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I would like to thank you and Mr. Bill Machrone for your article on "Portable Telephones for Everyone" in the July 1995 issue on page 83. The article was well written and informative. I am a sales engineer for a company that is the largest supplier of microphones and receivers(speakers) to the hearing instrument industry. (The company is Knowles Electronics. However I do not want to wait for approval to use our name. Therefore, I am sending this letter on my own.)

I would also like to address the "... use old inferior hearing aids.." statement by the chairman of GSM MoU. This statement was obviously made by someone who does not understand the technology of our industry. The main component that picks up the stray electromagnetic energy is the telecoil or "telephone coil". It is designed to help the hearing impaired use a standard telephone with their hearing instruments. I understand that the noise generated from someone using a GSM telephone is unbearable even if you are 100 feet away.

The telecoil is used in larger hearing instruments, like the BTE (Behind the Ear). Unfortunately, Europe has a much larger percentage of BTE wearers, 70% versus about 20% for the US. In Europe, the GSM has become such a problem that a technical committee was arranged to address the issues. (Although Knowles does not sell the telecoils or make hearing instruments, we have an engineer on that committee.) It was decided that the only immediate thing that could be done was to filter out the noise caused by the digital phones. Therefore, additional components have been added to the extremely limited space inside a hearing instrument. Adding these components causes exponentially greater build times since a hearing instrument that has mechanical feedback due to components touching each other must be "re-worked". The hearing instrument manufacturers have added this feature at no cost to the end user (I am told). I understand that some of them are making changes to instruments in the field for "free" if the hearing instrument is within warranty (usually 1-3 years). However, I do believe it is handled differently by each manufacturer.

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Even if the consumer does not have to pay for the additional costs involved in making their hearing instruments "GSA noise-proof", he will still have to travel to his dispenser and be without his hearing instrument for a few days or maybe a week. Imagine an elderly person traveling once again to their dispenser to drop off their hearing instruments. Or what about the person at any age who paid \$5,000 for their latest technology, programmable, BTE hearing instruments yesterday and find that they need to be "upgraded"!

If you would like more information, Horst Arndt, PH.D., Director, R&D for Unitron Industries, Inc in Kitchener, Ontario, recently spoke at a conference for mobil telephone manufacturers. He is well informed on the subject and can be reached at 519-895-0100. Also, our Engineer on the European committee is Stuart Ewens, Knowles Electronics Co, Burgess Hill, England and he can be reached at 44 444-235432. Mead Killion, President, Etymotic Research, Elk Grove Village, IL, phone (708) 228-0006, is a designer of complex hearing instrument circuits and also a professor of hearing instrument technology in Northwestern's audiology program. If you need any additional verification, just give me a call at 708-250-5114 and I will give you the names and telephone numbers of how ever many hearing instrument manufacturers you would like.

Sincerely,

Marian Glassford

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PS. We all try not to use "hearing AIDS" for obvious reasons. (Remember "AIDS" dietetic candy?) Now we use hearing instruments.